By John A. Tirpak, Editorial Director

Pay to play; Get 'em while you can; Black Diamond in the rough; 50-year trainer ....

HARD BARGAINING

The high stakes of doing business with the Pentagon on big-ticket programs came into sharp relief this fall with two significant developments. They signaled that industry buy-in on new projects has clearly become a competitive requirement, and that the Defense Department is so focused on cost that it may simply set contracting terms unilaterally to get the price it wants.

First, in late October, the Government Accountability Office released its report of why it ruled against Boeing's protest of the Air Force's late 2015 award of the B-21 bomber contract to Northrop Grumman. The report was heavily redacted because of the program's secrecy, but sifting through the legalese, it's clear that Northrop won the work by outbidding Boeing on price, even when the GAO found both companies were quite possibly bidding less than the work is worth. It also seems clear that both companies felt they had to underbid in order to win. The GAO rejected Boeing's claims that the risks of Northrop's approach and the cost realism of its bid weren't properly weighted by the Air Force.

Second, in early November, the Pentagon took the extraordinary step of halting negotiations with Lockheed Martin on production Lot 9 of the F-35 fighter and summarily set a price that hadn't been mutually agreed upon. The talks had dragged on for some 14 months, and with no resolution in sight, the Pentagon simply "came up with a price we thought was fair and reasonable" to keep the program moving, an F-35 program office spokesman said. Lockheed was "disappointed" with the government's action, a company spokesman reported, and while he insisted there's no question it will deliver F-35s under the contract, "we will evaluate our options and path forward." The company can seek recourse through the Armed Services Board of Contract Appeals, but had not decided in early November whether to do so.

The system program office had been trying to negotiate Lots 9 and 10 for the airframe at the same time. In mid-November, Lot 10 negotiations continued, and the SPO spokesman said the government hoped for a deal by the end of calendar 2016. Deals with Pratt & Whitney for Lots 9 and 10 of the F-35's engines had already been concluded and weren't part of November's unilateral contract action.

The spokesman said the government and Lockheed were not far apart on price, but the disagreements were "fundamental." Industry sources said the sticking points were award fees and company profit. The SPO had given Lockheed nearly $1 billion over the summer because the company had publicly complained that, without the Lot 9 contract in hand, it was paying for long-lead materials and work out of its own pocket. The money was to tide the company over until the deal was struck.

Coincidentally, these two developments came within a week of Pentagon acquisition chief Frank Kendall calling the press in to review long-term progress in getting acquisition costs under control through three iterations of his Better Buying Power initiatives. Summing up internal efforts at acquisition reform, Kendall noted that DOD has the fewest programs late or over budget in 30 years. He said the initiatives he and Defense Secretary Ashton B. Carter launched to get acquisition under control "were successful," although he acknowledged "we have work to do" on many of the hundreds of programs under Pentagon management, some of them continuing to defy budgets and calendars.

Kendall has previously keyed the success of BBP to competition whenever it makes sense, along with acknowledging the defense contractor's right to earn an appropriate profit, but by tying that profit more directly to incentives and performance rather than the calendar. He has also encouraged industry buy-in—companies spending their own money to develop new technologies—as a way to gain a competitive advantage and reduce risk on programs.

What Kendall pointed out, though, is that while fewer programs have problems, "there are also fewer programs." These realities have caused the big contractors to view any new major project coming up for competition to be a "must-win."

WINNER TAKE ALL

The F-35 started this trend. The 2001 winner-take-all contract with Lockheed Martin effectively locked out any competitor from designing an all-new fighter for the US military for 20 years or more, giving the company a strategic competitive advantage over anyone else when the next new fighter program gets underway.

The Air Force's KC-X aerial tanker replacement strategy—after fits and starts throughout the 2000s—eventually was won by Boeing, which admits it bid aggressively on the fixed-price project, knowing another tanker program might not come along until the 2030s. Boeing officials have said they were willing to lose money on the tanker's development effort in order to gain volume for the company's 767 line of cargo jets and to be competitive in many upcoming international tanker contests. Hard experience has taught industry that an American military product not in American military service is a tough sell overseas.

Though the company is already $1.2 billion in the red on the KC-46A, recent remarks from Air Force Air Mobility Command's chief, Gen. Carlton D. Everhart II, suggest Boeing's tanker underbid may have been a good bet. Everhart said he thinks the planned second phase of the three-phase modernization of the tanker fleet—the so-called KC-Y—might simply be negotiated with Boeing and not competed. A future KC-Z, he said, will likely be something different from the airliner-type tankers the Air Force has flown for 60 years—potentially more advanced concepts able to escort fighters and bombers into heavily defended enemy airspace.

Like the F-35 and KC-46 in the fighter and tanker categories, the B-21—the third of USAF's crown jewel acquisition programs, and one that service leaders have said they will protect at the expense of other modernization efforts—is probably the only bomber program the Air Force will pursue for the next 30 to 50 years. Given changing technologies, especially in unmanned systems, it may even be the last classical bomber program ever.

In Northrop Grumman's case, losing the bomber might have signaled its exit from the combat aircraft business, much like what happened when McDonnell Douglas Corp. was eliminated from the Joint Strike Fighter competition in the 1990s. McDonnell merged with Boeing in 1997.

In the GAO's autopsy of the B-21 contract, it concluded that the award was based on whoever could offer "the lowest-price technically acceptable best-value approach" with "no credit for exceeding the requirements." While there was a formula whereby a higher bid could win if it offered certain extra value up to about 103 percent of what the Air Force said it was willing to pay, ultimately that didn't affect the outcome. The GAO said Northrop's bid was "substantially" lower than the Boeing-Lockheed team's, reflecting "Northrop's corporate investment decisions" to bear more development cost, along with somewhat better labor rates.

The GAO quoted the source selection authority—whose identity is always withheld—as saying both competitors were "aggressive" in their pricing. So much so, in fact, that both teams initially came in with bids considered unrealistically low and well short of an Air Force independent cost estimate.

"Both offerors submitted cost proposals that I believe reflect aggressive attempts to achieve the lowest evaluated price in this competition," the GAO quoted the selector as saying. "Neither offeror substantiated that it could accomplish all necessary EMD (engineering and manufacturing development) efforts at its proposed cost for EMD."

In Boeing's case, though the GAO report did not identify it as such, the company believed its "Black Diamond" manufacturing processes, privately touted by Boeing as "revolutionary," justified its low bid. The Air Force's independent cost estimate used historical experience on other major programs for cost comparison and did not accept Boeing's claims that Black Diamond represented a watershed ability to reduce cost. The GAO said the Air Force did nothing wrong in using prior experience as its reality check on costs and had made clear it would do so in choosing a winner.

The initial technical offerings, pared down by the companies to be lowest cost and to reflect Kendall's insistence on low risk, were also judged too bare-bones to suit the Air Force. After the service discussed the offerings with the two teams up to a dozen times, the GAO said, technically acceptable proposals were offered by each. The service wanted "mature, integration-ready" technologies.

The GAO said the Air Force did judge some risk in Northrop's proposal related to schedule, but the service has structured the contract such that Northrop earns its fees only to the degree that the project moves according to schedule. Lt. Gen. Arnold W. Bunch Jr., military deputy to USAF's acquisition chief, said in a press conference last year that the more Northrop is late, the less its fee will be, and the fee can go down "to zero."

FOLLOWING PRECEDENT

In quarterly earnings calls with business reporters, executives with all the major aircraft companies have said in recent months they regard upcoming competitions—the T-X trainer and the JSTARS recapitalization among them—as must-win contracts. Given that the B-21 was won based chiefly on cost, with no credit given for additional performance or capability, companies will probably tailor their entries to exactly the performance the Air Force specified, shooting for the lowest price rather than the best all-around value.

Boeing Phantom Works chief Darryl W. Davis, presenting the company's new entrant in the T-X competition in September, said the design strictly addresses USAF's specified performance requirements. He would not discuss performance above threshold requirements, but he suggested the design simply left room for wiring and plumbing to accommodate other missions that may come up in the future and will be competed separately. These may include a USAF companion trainer for small fleets like the B-2 bomber and F-22 fighter, or a lead-in fighter. The service has said explicitly, however, that it's looking for an advanced trainer first and won't give credit for applicability to other missions.

Given that the Air Force is replacing the T-38—in service for more than 55 years—the likelihood of another trainer program coming along in the next 30 years is small. And given that the worldwide market for a modern trainer could be in the thousands of airplanes, the bids on T-X could be pretty low as well.

HISTORY IN THE DETAILS

The GAO's synopsis of its ruling in the Boeing bomber protest provided some facts about the program long guessed at but never officially confirmed.

According to the report, the bomber program got going in 2004, and Boeing, Lockheed Martin, and Northrop Grumman were all brought in to offer their concepts and vision for what the Air Force's new long-range strike aircraft would be. By 2007, it officially became the Next Generation Bomber program, and by then Lockheed Martin had teamed with Boeing to compete against Northrop Grumman.

In 2010, then-Defense Secretary Robert M. Gates canceled the program, saying it had grown too expensive. The GAO said all three companies, however, got contracts to continue working on bomber technologies—specifically those geared toward "risk reduction and cost savings efforts."

Kendall's low-risk mantra was applied, and the Air Force approach to the aircraft shifted to one of modularity—an open systems architecture that could allow upgrades to be added regularly and inexpensively. Unlike previous programs, the Air Force would own the technical data package, so the upgrades could be competed, and the prime contractor would not necessarily have an inside track to future work on the jet.

Language in the GAO report about concepts "demonstrated" suggests flying prototypes or subscale aircraft were flown. Both Boeing and Northrop had to carry their designs through a USAF preliminary design review that both passed. ✪